

A4GALT Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP58685

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9NPC4
Reactivity	Rat, Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40499
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human A4GALT/CD77
Epitope Specificity	291-353/353
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Golgi apparatus membrane; Single-pass type II membrane protein (Probable).
SIMILARITY	Belongs to the glycosyltransferase 32 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Necessary for the biosynthesis of the Pk antigen of blood histogroup P. Catalyzes the transfer of galactose to lactosylceramide and galactosylceramide. Necessary for the synthesis of the receptor for bacterial verotoxins. Expression of CD77, also called Gb3, sensitizes a cell to verotoxins, causing cellular injury that can lead to disease. Therefore, the complex regulation of CD77 biosynthesis and the activity of the enzymes involved, such as CD77 synthase, can be studied by compared gene expression between toxin-sensitive and insensitive tissues and cell lines. The highest tissue expression of CD77 synthase occurs in the kidney, mesenteric lymph node, spleen, and brain. Burkitt leukemia cells express very high levels of CD77 as well as CD77 synthase, and are sensitive to verotoxin induced apoptosis. These megakaryoblasts then never mature, leading to the arrest of platelet generation in the bone marrow, which may cause thrombocytopenia, a symptom associated with various hemorrhagic conditions.

Additional Information

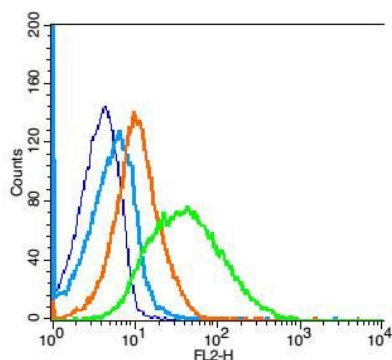
Gene ID	53947
Other Names	Lactosylceramide 4-alpha-galactosyltransferase, 2.4.1.228, Alpha-1, 4-N-acetylglucosaminyltransferase, Alpha-1, 4-galactosyltransferase, Alpha4Gal-T1, CD77 synthase, Globotriaosylceramide synthase, Gb3 synthase, P1/Pk synthase, UDP-galactose:beta-D-galactosyl-beta1-R 4-alpha-D-galactosyltransferase, A4GALT, A14GALT, A4GALT1

Target/Specificity	Ubiquitous. Highly expressed in kidney, heart, spleen, liver, testis and placenta.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug /Test,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	A4GALT
Synonyms	A14GALT, A4GALT1
Function	Catalyzes the transfer of galactose from UDP-alpha-D- galactose to lactosylceramide/beta-D-galactosyl-(1->4)-beta-D-glucosyl-(11)-ceramide(d18:1(4E)) to produce globotriaosylceramide/globoside Gb3Cer (d18:1(4E)) (PubMed: 10748143). Also able to transfer galactose to galactosylceramide/beta-D-Gal-(11')-Cer (PubMed: 10748143). Globoside Gb3Cer is a glycosphingolipid of the globo serie, one of the major types of neutral root structures of glycosphingolipids, that constitute a significant portion of mammalian cell membranes (Probable). Globotriaosylceramide/globoside Gb3Cer in blood and tissue cell membranes is the antigen Pk of blood histogroup P (PubMed: 10747952).
Cellular Location	Golgi apparatus membrane; Single- pass type II membrane protein
Tissue Location	Ubiquitous. Highly expressed in kidney, heart, spleen, liver, testis and placenta

Images



Blank control(blue):mouse spleen cells (fixed with 2% paraformaldehyde (10 min), then permeabilized with 90% ice-cold methanol for 30 min on ice).

Primary Antibody: Rabbit Anti- A4GALT antibody(AP58685), Dilution: 1 µg in 100 µL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.